

REMARKS

Claim 23 have been canceled.

Upon entry of the Amendment, claims 1-22 are pending in the application.

Claims 1-23 have been provisionally rejected under the judicially created obviousness type double patenting rejection over claims 1-14 of U.S. Appln. No. 10/799,710, claims 1-23 of U.S. Appln. 10/763,385 and claims 1-6 of U.S. Appln. No. 10/647,379.

Applicants respectfully traverse the obvious double patenting rejection over claims 1-6 of U.S. Appln. No. 10/647,379. U.S. Appln. No. 10/647,379 relates to a liquid crystalline polyester comprising an aromatic hydroxycarboxylic acid, an aromatic diol, an aromatic dicarboxylic acid and a diaryl carbonate, each of which is represented by the formulas (I)-(IV), respectively, as recited in claim 1 of the application. On the other hand, the liquid crystalline polyester of the present application “consists essentially of” three repeating units derived from a 2-hydroxy-6-naphthoic acid, an aromatic diol and an aromatic dicarboxylic acid, as recited in claim 1. Such a liquid crystalline polyester of the claimed invention, which consists essentially of the three repeating units, is not obvious over U.S. Appln. No. 10/647,379 in which the forth unit derived from diaryl carbonate, is present. Therefore, the present invention is not obvious over U.S. Appln. No. 10/647,379. Reconsideration and withdrawal of the rejection is respectfully requested.

With respect to U.S. Appln. No. 10/799,710, MPEP 804 states that “a provisional rejection *can* be addressed by both the applicant and the examiner without waiting for the first

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patent to issue" (emphasis added). Therefore, Applicants can also choose to defer a response to the provisional rejection until one of the applications is issued as a patent. Applicants respectfully defer the response to the provisional obviousness-type patenting rejection over U.S. Appln. No. 10/799,710 at the present time.

With respect to the provisional obviousness-type double patenting rejection over U.S. 10/763,385, while Applicants respectfully submit that the present invention is not obvious over the claims of U.S. Appln. No. 10/763,385, to expedite allowance of the present Application, Applicants are submitting herewith a terminal disclaimer to obviate the provisional obviousness-type double patenting rejection over the claims of U.S. Appln. No. 10/763,385. Accordingly, Applicants respectfully request that the Examiner reconsider and withdraw the rejection.

Claims 1-6 have been rejected under 35 U.S.C. § 102(e) as allegedly being anticipated by Okamoto et al., U.S. Publication No. 2004/0044171 A1 ("Okamoto").

It appears that the Examiner mistakenly identifies this reference as Katagiri et al. in the body of the Office Action, but correctly identifies this reference as Okamoto et al. in the attached PTO 892 form.

Additionally, Okamoto, U.S. Publication No. 2004/0044171 A1 is the publication of U.S. Appln. No. 10/647,379, which is cited in the judicially created obviousness-type double patenting rejection as described above.

Okamoto relates to a liquid crystalline polyester comprising an aromatic hydroxycarboxylic acid, an aromatic diol, an aromatic dicarboxylic acid and a diaryl carbonate, each of which is represented by the formulas (I)-(IV), respectively, and does not teach a liquid-

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crystalline polyester which consists essentially of three repeating units derived from a 2-hydroxy-6-naphthoic acid, an aromatic diol and an aromatic dicarboxylic acid. Okamoto does not direct one of skill in the art to such a liquid crystalline polyester without the unit derived from a diaryl carbonate. Therefore, Okamoto does not anticipate the claimed invention.

In view of the foregoing, Applicants respectfully request that the Examiner reconsider and withdraw the rejection.

Claims 1-6 have been rejected under 35 U.S.C. § 102(e) as allegedly being anticipated by Ueno et al., U.S. Publication 2005/0054811 A1 (“Ueno”).

Applicants traverse the rejection based on the following remarks.

The PCT Application to Ueno, PCT Appln PCT/JP02/12257, was published in Japanese. Accordingly, the PCT filing date is not the § 102(e) date and Ueno does not have an effective § 102(e) date.

In view of the foregoing, Applicants submit that the rejection under 35 U.S.C. § 102(e) is inappropriate.

Additionally, Applicants submit that Ueno’s liquid crystalline polyester resin comprises as its structural components, monomer units derived from 2-hydroxy-3-naphthoic acid and/or 2-hydroxynaphthalene-3,6-dicarboxylic acid in an amount of 1-5000 mm%, preferably 10-4000 mm% and more preferably 50-3000 mmol% based on the total repeating units of monomer components of the liquid-crystalline polyester resin ([0008] of Ueno).

Although Ueno discloses that aromatic hydroxyl carboxylic acids, aromatic dicarboxylic acids and aromatic diols may be employed ([0018]-[0020] of the reference), these monomers are

optional monomers which may be contained in the Ueno's polyester resin having the units derived from 2-hydroxy-3-naphthoic acid and/or 2-hydroxynaphthalene-3,6-dicarboxylic acid.

On the other hand, the liquid-crystalline polyester of the claimed invention consists essentially of three repeating units derived from a 2-hydroxy-6-naphthoic acid, an aromatic diol and an aromatic dicarboxylic acid. Ueno does not teach such a liquid crystalline polyester with sufficient specificity to constitute an anticipation of the claimed invention.

Further, Ueno fails to disclose the mole percentage of the repeating units as in claim 1 of the present application. Accordingly Ueno does not anticipate the claimed invention.

In view of the foregoing, Applicants respectfully request that the Examiner reconsider and withdraw the rejection.

Claims 1-6 have been rejected under 35 U.S.C. § 102(e) as allegedly being anticipated by Kometani et al., U.S. Patent No. 6,755,991 B2.

Applicants respectfully traverse the rejection based on the following remarks.

Kometani discloses a composition essentially consisting of:

- (a) at least one aromatic dicarboxylic acid,
- (b) 1-3000 ppm of at least one compound selected from the group consisting of 6-formyl-2-naphthoic acid, 6-methoxycarbonyl-2-naphthoic acid and trimellitic acid,
- (c) 1-1000 ppm of at least one alkali metal, and
- (d) 0-3000 ppm of at least one transition metal (see, Abstract, and col. 1, lines 51-60 of the reference).

Kometani also discloses a liquid-crystalline polyester resin comprising:

- (a) at least one repeat unit derived from an aromatic dicarboxylic acid,
- (b) at least one monomer unit derived from a compound selected from the group consisting of 6-formyl-2-naphthoic acid, 6-methoxycarbonyl-2-naphthoic acid and trimellitic acid in an amount of 0.1-100 mmol% based on the total monomer units constituting the polyester; and
- (c) 1-100 ppm of at least one alkali metal compound (see, col. 2, lines 1-15 of the reference).

The liquid-crystalline polyester resin of Kometani may be prepared by polymerizing the Kometani's composition and LCP constituting monomers other than the aromatic dicarboxylic acid (see, col. 2, lines 16-20 of the reference). Kometani discloses that in addition to aromatic dicarboxylic acids, aromatic hydroxyl carboxylic acids, aromatic diols and the like may be employed as the optional constituting monomers (see, col. 3, line 67-col. 4, line 7 of the reference).

While Kometani's polyester resin may contain the repeat units derived from the above-mentioned optional constituting monomers, Kometani's polyester resin has the units derived from at least one monomer unit derived from a compound selected from the group consisting of 6-formyl-2-naphthoic acid, 6-methoxycarbonyl-2-naphthoic acid and trimellitic acid.

On the other hand, the liquid-crystalline polyester of the claimed invention consists essentially of three repeating units derived from a 2-hydroxy-6-naphthoic acid (in the second paragraph on page 7 of the Office Action, the Examiner erroneously indicated that claim 1 recites 2-hydroxy-3-naphthoic acid), an aromatic diol and an aromatic dicarboxylic acid, which

is different from the Kometani's polyester resin in which a monomer unit derived from a compound selected from the group consisting of 6-formyl-2-naphthoic acid, 6-methoxycarbonyl-2-naphthoic acid and trimellitic acid is present.

Additionally, Kometani fails to disclose the mole percentages of the repeating units as in claim 1 of the present application. Accordingly, Kometani does not anticipate the claimed invention.

In view of the foregoing, Applicants respectfully request that the Examiner reconsider and withdraw the rejection.

Claims 1-5 have been rejected under 35 U.S.C. § 102(e) as allegedly being anticipated by Suenaga et al. ("Suenaga").

Applicants respectfully traverse the rejection based on the following remarks.

Suenaga provides a wholly aromatic liquid crystalline resin composition comprising: 97-60 parts by weight of a wholly aromatic liquid crystalline polyester resin (A) having melting peak determined by differential scanning calorimetry (DSC) equal to or higher than 310°C; and

3-40 parts by weight of a wholly aromatic liquid crystalline polyester resin (B) having melting peak determined by differential scanning calorimetry (DSC) equal to or lower than 300 °C (see, Abstract, and col. 2, lines 22-32).

Suenaga discloses that:

Examples of the monomers used for preparing LCPs (A) and (B) used herein may include aromatic hydroxycarboxylic acids, aromatic dicarboxylic acids, aromatic bivalent phenols,

aromatic diamines, aromatic hydroxyl amines, and aromatic aminocarboxylic acids (see, col. 2, line 66 to col. 3, line 3).

Suenaga further discloses that:

The wholly aromatic liquid crystalline polyester resins used as LCP (A) in the present invention may comprise any combination of the monomers listed above as long as the melting peak of resulting LCP is equal to or higher than 310°C. Examples of preferred LCP(A) include the following:

- polycondensed compound of p-hydroxybenzoic acid, 2-hydroxy-6-naphthoic acid, hydroquinone and terephthalic acid;
 - polycondensed compound of p-hydroxybenzoic acid, 4,4'-biphenol, hydroquinone, terephthalic acid and 2,6-naphthalene dicarboxylic acid;
 - polycondensed compound of p-hydroxybenzoic acid, 2-hydroxy-6-naphthoic acid, 4,4'-biphenol, terephthalic acid and p-aminophenol;
 - polycondensed compound of p-hydroxybenzoic acid, 2-hydroxy-6-naphthoic acid, hydroquinone and 2,6-naphthalene dicarboxylic acid; and
- Polycondensed compound of p-hydroxybenzoic acid, 4,4'-biphenol, terephthalic acid and isophthalic acid (see, col. 3, line 57 to col. 4, line 8 of the reference).

The liquid crystalline polyester resins described above are polyester resins composed of four or five difference kinds of monomers.

Suenaga also discloses that:

The preferable wholly aromatic liquid crystalline polyester resins used as LCP(B) in the present invention are copolymers composed of two monomers, p-hydroxy benzoic acid (PHB) and p-hydroxy-6-naphthoic acid (BON6) having melting peak of equal to lower than 300°C (see, col. 4, lines 17-21 of the reference).

As cited above, while Suenaga exemplifies a lot of monomers for preparing liquid crystalline polyester resins, Suenaga actually teaches liquid crystalline polyester resins composed of four or five different kinds of monomers as LCP (A) and liquid crystalline polyester resins composed of two monomers as LCP (B). Suenaga fails to teach a liquid-crystalline polyester of the claimed invention, which consists essentially of three repeating units derived from a 2-hydroxy-6-naphthoic acid (the Examiner erroneously indicates that 2-hydroxy-3-naphthoic acid is recited in claim 1), an aromatic diol and an aromatic dicarboxylic acid.

Additionally, Suenaga fails to disclose the mole percentages of the repeating units as in claim 1 of the present application. Accordingly, Suenaga does not anticipate the claimed invention.

In view of the foregoing, Applicants respectfully request that the Examiner reconsider and withdraw the rejection.

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

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The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,


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